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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/045,055      | 01/15/2002  | Eyal Benoudiz        | V02/16              | 2941             |

7590 06/29/2005  
Martin D. Moynihan  
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Arlington, VA 22202

EXAMINER

KENDALL, CHUCK O

ART UNIT PAPER NUMBER

2192

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/045,055 | <b>Applicant(s)</b><br>BENOUDIZ, EYAL |  |
|                              | <b>Examiner</b><br>Chuck Kendall     | <b>Art Unit</b><br>2192               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

1. This action is in response to the application filed 03/10/05.
2. Claims 1 – 24 have been amended and are still pending.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 1 – 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Hines US2003/0028858 A1.

Regarding claim 1, Hines anticipates a debugger for visual debugging of declarative language encapsulated constraint system, comprising:

a collector for collecting generation events during a test process comprising generation of objects and generation decisions for debugging said declarative language encapsulated constraint system (1, [006] see examination of events also see column 22, section [0422] for event collection during testing); and

a systematic, graphical representation for relating respective generation objects and said generation decisions during said test (18, [0352 - 0355] ).

Regarding claim 2, the debugger of claim 1, wherein said graphical representation is as a two dimensional chart (19:[0376] see, event graph).

Regarding claim 3, the debugger of claim 2, wherein said two-dimensional chart is based on generation events collected during the generation process and static analysis phase (see, [0376] see, event graph), each event reflecting a generation operation, and wherein generation entities for generating said generation events are presented on a first dimension of said chart and a second dimension represents an execution sequence, with generation events being displayed as aligned with their related generation entities (see[0376], and for sequence see e1 – e3).

Regarding claim 4, the debugger of claim 1, further comprising:

a data browser for interactive selection of generation entities to be viewed (see FIG. 24B, 2450 for web browser, also see associated text).

Regarding claim 5, the debugger of claim 1, further comprising:

a step tree for presenting a sequence of steps performed by the generator, for identifying the step where the computation diverged from the expected behavior (see [0424, for tree]).

Regarding claim 6, the debugger of claim 1, further comprising:

an event browser for displaying generation events( FIG. 24A, 2402 see pen stroke recognizer for generation of event and see LCD screen 2300 and also 2450 from FIG.24B).

Art Unit: 2192

Regarding claim 7, the debugger of claim 1, further comprising:

an order browser for displaying generation field order decisions (see, [0355] for order of events).

Regarding claim 8, a method for visual debugging of a constraint system said constraint system having being encapsulated in a declarative language comprising:

displaying a plurality of generation events collected during the generation process such that a relationship between said plurality of generation events and a plurality of generation entities for generating said generation events is graphically displayed and wherein an order of execution of said generation entities is also graphically displayed, for visual debugging of the group of constraints (1, [006] see examination of events also see column 22, section [0422] for event collection during testing).

Regarding claim 9, the method of claim 8, further comprising:

viewing a plurality of generation events sequentially from a selected event ([0350] see primitive events and sequential).

Regarding claim 10, the method of claim 9, wherein said sequence is displayed forward from said selected event (see, [0488] – [0489] for evolution diagrams).

Regarding claim 11, the method of claim 8, wherein said sequence is displayed backward from said selected event (see [0295], see address book forward and backwards), also see [0510] for scrolling back to the beginning).

Regarding claim 12 the method version of claim 1, see rationale as previously discussed above.

Regarding claim 13, the method of claim 12, wherein said visual display includes a representation of at least one generated field from at least one event ([0358] see visual representations and events).

Regarding claim 14, the method of claim 12, wherein said visual display includes a representation of at least one constraint from at least one event ([0499] see events and coordinator constraints]).

Regarding claim 15, the method of claim 12, wherein said visual display includes a representation of at least one generation event related to a generation entity ([0358], see "entities can also represent any entity that generates events in a sequential fashion ").

Regarding claim 16, the method of claim 12, wherein said visual display includes at least one type of information displayed as a result of a selection by the user ([0006], see selective focus).

Regarding claim 17, the process version of claim 8, see rationale as previously discussed above.

Regarding claim 18, the generation debugger of claim 17, wherein said visual display further displays information related to an event collected during static analysis ([0144], see coordinator and static analysis).

Regarding claim 19, the generation debugger of claim 17, wherein said visual display further displays information related to an event collected during program execution ([0422], see event sensor 3602).

Regarding claim 20, the generation debugger of claim 17, wherein said information is represented with at least one icon and wherein said visual display further displays information when said icon is selected ([0492], see “visual cue, or icon”).

Regarding claim 21, the generation debugger of claim 17, wherein said visual display further displays ordering information for a plurality of fields ([0484], see ordered event displays).

Regarding claim 22, the generation debugger of claim 21, wherein said visual display further displays ordering information based on static analysis ([0144], see coordinator and static analysis).

Regarding claim 23, the generation debugger of claim 21, wherein said visual display further displays ordering information based on order computed dynamically ([0268] – [0270]).

Regarding claim 24, the generation debugger of claim 21, wherein said visual display further displays ordering information related to a group of fields selected through said visual display ([0422]).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1 - 24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 571-2723698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-2723695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 2192

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CK.

A handwritten signature in black ink, reading "Anthony Nguyen-Ba". The signature is written in a cursive, flowing style.

**ANTONY NGUYEN-BA  
PRIMARY EXAMINER**